

AMENDMENTS TO THE CLAIMS

The following list of claims contains all of the claims that are, or ever have been, in the present application. This list will replace all other prior versions, and listings, of the claims:

Listing of claims:

1 (currently amended). A device suitable for implantation in a living being, said device comprising a tissue fixation device comprising a head portion, and a shank portion wherein said head portion and said shank portion are arranged on a common longitudinal axis that is the longitudinal axis of said device, said device comprising an at least partially crystalline polymer material that exhibits at least a degree of molecular orientation throughout said device, said molecular orientation being defined by an axis, wherein said common longitudinal axis is also the [[an]] axis of said molecular orientation, said polymer material comprising a plurality of zones having cross section, wherein the polymer material in said shank portion is more highly oriented than that polymer material in said head portion.

2 (original). The device of claim 1, wherein said polymer material comprises a resorbable polymer.

3 (original). The device of claim 2, wherein said resorbable polymer is selected from the group consisting of PLA, PGA, PGA/PLLA, DLPLA, and combinations thereof.

4 (original). The device of claim 1 further comprising additive materials selected from the group consisting of ceramics, fibrous materials, particulate materials, biologically active agents, plasticizers and combinations thereof.

5-6 (canceled)

7 (canceled).

8-21 (canceled)

22 (canceled).

23 (currently amended). A device suitable for implantation in a living being, said device comprising a tissue fixation device comprising a head zone, and a shank zone, wherein said head zone and said shank zone are arranged on a common longitudinal axis that is the longitudinal axis of said device, said device comprising an at least partially crystalline polymer material that exhibits at least a degree of molecular orientation throughout said polymer material, wherein said common longitudinal axis is also [[an]] the axis of said molecular orientation, wherein the polymer material in said shank zone is more highly oriented than that polymer material in said head zone, and wherein said device is made by the process of:

a. providing a polymer slug, die cavity tooling, and ram press, wherein said die cavity tooling defines a die shape having a plurality of zones of varying cross-section, and specifically wherein said shank zone has a smaller cross-section than said head zone, and wherein said polymer slug has a polymeric molecular structure;

b. placing said polymer slug between said ram press and die cavity tooling;

c. heating at least said polymer slug to a temperature in a range between the glass transition temperature and the melting temperature;

d. after said heating, actuating said ram press in order to apply pressure upon said polymer slug, thereby deforming said polymer slug and forcing said polymer slug to conform to said die shape, wherein said deforming causes an alignment of said polymeric molecular structure along an axis, and further wherein at least said shank zone undergoes a greater degree of deformation and elongation than said head zone, thereby resulting in said polymer slug being formed into said device comprising said zones of varying cross section, and wherein said at least one zone of smaller cross-section has a greater degree of alignment than said zone of larger cross-section; and

e. removing said device from said die cavity tooling, wherein said actuating, deforming and removing each take place along a common longitudinal axis, and further wherein said longitudinal axis is said axis of molecular orientation.

24 (original). The device made by the process of Claim 23, the process further comprising the step of:

machining said device to a finished product.

25-27 (canceled).

28 (original). The device made by the process of Claim 23, wherein said polymer slug comprises a resorbable polymer.

29 (original). The device of claim 28, wherein said resorbable polymer is selected from the group consisting of PLA, PGA, PGA/PLLA, DLPLA, and combinations thereof.

30 (original). The device made by the process of Claim 23, wherein said polymer slug provided further comprises additive materials.

31 (original). The device of claim 30, wherein said additive materials are selected from the group consisting of ceramics, fibrous materials, particulate materials, biologically active agents, plasticizers and combinations thereof.

32 (canceled).

33 (original). The device made by the process of Claim 23, wherein said die cavity tooling is temperature controlled.

34 (original). The device made by the process of Claim 23, wherein said barrel is temperature controlled.

35 (original). The device made by the process of Claim 23, wherein said ram press further comprises complex geometry.

36 (original). The device made by the process of Claim 23, wherein said die cavity tooling is not a single piece but rather comprises a plurality of pieces capable of fitting together.

37 (original). The device made by the process of Claim 23, wherein said polymer slug further comprises complex geometry.

38 (original). The device made by the process of Claim 23, wherein said die cavity tooling further comprises an ejection pin.

39 (original). The device of claim 38, wherein said ejection pin serves to form an end of said polymer slug.

40 (previously presented). The device of claim 1, arranged as a bone fixation device.

41 (canceled).

42 (canceled).

43 (new). A device, comprising:

- (a) a tissue fixation device suitable for implantation in a living being and comprising a head region and a shank region, each of said head and shank regions comprising an at least partially crystalline polymer material that exhibits at least a degree of molecular orientation;
- (b) one longitudinal axis;
- (c) wherein said shank region has a smaller cross-section and exhibits a greater degree of molecular orientation than said head region;
- (d) wherein both said shank and said head regions are arranged on said longitudinal axis;
- (e) wherein said molecular orientation can be defined by an axis; and
- (f) further wherein the longitudinal axis of said device is the axis of molecular orientation.

44 (new). A device, comprising:

- (a) a tissue fixation device suitable for implantation in a living being and comprising at least one region that differs in cross-section size than another region, and further wherein said at least one region and said another region each comprises an at least partially crystalline polymer material that exhibits at least a degree of molecular orientation;
- (b) a longitudinal axis;
- (c) wherein the polymer material of a region having a smaller cross-section is more highly oriented than another region having a larger cross-section;
- (d) wherein each of said at least one region and said another region is arranged on said longitudinal axis; and
- (e) further wherein the longitudinal axis of said device is the axis of molecular orientation.

45 (new). The device of claim 23, further comprising the steps of:

- f. placing said device between said ram press and a second die cavity tooling, wherein said second die cavity tooling defines a second die shape; and

g. actuating said ram press in order to apply pressure upon said device, thereby forcing said device to conform to said second die shape, wherein said device is formed into a twice-pressed device comprising zones of increased alignment of the polymer molecular structure, and zones of varying cross section.

46 (new). The device of claim 44, arranged as a fastener.

47 (new). The device of claim 44, arranged as at least one of a screw, pin, rod, nail, plate, staple and suture anchor.

48 (new). The device of claim 1, wherein said polymer material is crystalline.

49 (new). The device of claim 1, wherein said polymer material comprises a non-resorbable polymer.